

REMARKS

In paragraph 3 of the final Action, claims 20-22, 25, 26 and 29 were rejected under 35 U.S.C. 102(b) as being anticipated by Cameron et al. In paragraph 5 of the Action, claims 23, 24, 27 and 28 were rejected under 35 U.S.C. 103(a) as being unpatentable over Cameron et al. in view of Pfister.

In view of the rejections, claim 23 has been cancelled, and the subject matter of cancelled claim 23 has been incorporated into claim 20. Also, claim 28 has been amended to correct inaccurate recitation.

As recited in claim 20, a cutting device of the invention cuts four edges of a recording medium. The cutting device includes a feed path for feeding the recording medium, an end cutter for cutting leading and trailing edges of the recording medium transferred in the feed path, and a side cutter for cutting two side edges of the recording medium fed in the feed path. The feed path has a curved portion in a middle thereof so that a transfer direction of the recording medium transferred in the feed path is forcibly changed at the middle thereof. The side cutter is located at the curved portion of the feed path to securely cut the recording medium along the transfer direction while providing stiffness to the recording medium at the curved portion.

In the invention, a pair of first feed rollers is formed in the feed path for transferring the recording medium to the curved portion. Also, the side cutter includes axes, two pairs of rotary blades formed on the axes, and transfer rollers provided on the axes for feeding the recording medium. The recording medium is fed along the transfer rollers while changing the transfer direction.

When the recording medium, such as sheet, is changed in its transfer direction in the feed path, the recording medium is slightly stiffened at the curved portion in the feed path. In this

position, the transfer rollers and the rotary blades are provided on the same axes. Thus, in the condition that the recording medium is being fed at the transfer rollers and the transfer direction of the recording medium is changed to provide stiffness to the recording medium, the side cutter cuts the recording medium along the transfer direction. In the invention, the feeding medium can be surely transferred and cut.

In Cameron et al., a machine for converting a web into sheets includes a slitting device consisting of a rotatable smooth faced backing member 1 and score-cut slitters 2, pull rolls 4, 5 at a downstream side of the web, and knives 6, 7 as a transverse severing device. The slitters 2 are placed to contact the backing member 1, so that the web is cut by the slitters 2 on the backing member 1.

In the invention, the pair of first feed rollers is formed in the feed path for transferring the recording medium to the curved portion or side cutter. In Cameron et al., there are no rollers corresponding to the first feed rollers of the invention.

In the invention, the side cutter includes axes, two pairs of rotary blades formed on the axes, and transfer rollers provided on the axes for feeding the recording medium. Namely, one transfer roller with two rotary blades spaced apart from each other is placed on both sides of the transfer medium. In Cameron et al., the slitting device consists of the smooth faced backing member 1 and the score-cutter slitters 2. The slitters 2 simply contact the backing member 1 for cutting. The structure of the side cutter of the invention is entirely different from the slitting device of Cameron et al.

In Pfister, a cutter includes a reciprocating cutting mechanism A for cutting longitudinal ends of a sheet, and a longitudinal cutting mechanism B. The longitudinal cutting mechanism B includes rotary cutting blades 35, 36 located on shafts

10, 13. Pulleys 24, 25 are disposed over the shaft 10 to urge the cutting blades 36 toward the cutting blades 35 by springs 39. Carrier belts 20, 21 are disposed between the cutting mechanisms A and B, and the pulleys 24, 25 contact the belts 20, 21, so that the sheet cut by the cutting mechanism B is transferred to the cutting mechanism A.

In the invention, the side cutter includes axes, two pairs of rotary blades formed on the axes, and transfer rollers provided on the axes for feeding the recording medium, so that the recording medium is fed along the transfer rollers while changing the transfer direction. In Pfister, the shaft 13 carries the cutting blades 35 and pulleys 17, 18 with grooves 19 for the belts 20, 21, and the shaft 10 carries the cutting blades 36 and the pulleys 24, 25 contacting the belts 20, 21. There are no transfer rollers of the invention. The structure of the side cutter of the invention is different from that disclosed in Pfister.

In the invention, also, the side cutter is located at the curved portion of the feed path to securely cut the recording medium along the transfer direction while providing stiffness to the recording medium at the curved portion. In Pfister, the cutting mechanism B is located between the carrier belts 20, 21 and an idle carrier roller 42. The cutting blades 35, 36 are not located at the curved portion in the middle of the feed path.

Therefore, Pfister does not disclose or suggest the features of the invention.

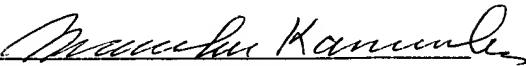
As explained above, the cited references do not disclose or suggest the features of the invention. Even if the cited references are combined, the invention is not obvious from the cited references.

Reconsideration and allowance are earnestly solicited.

A one month extension of time is hereby requested. A check in the amount of \$110.00 is attached herewith for the one month extension of time.

Respectfully Submitted,

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